REMARKS

Claims 1-56 were pending in this application when the present Office Action was mailed (October 16, 2003). Claims 1 and 28 have been amended to clarify certain aspects of these claims. Claims 33-56 (which were not elected in response to a telephonic restriction requirement from Examiner Gurley on May 14, 2003) are hereby cancelled. Accordingly, claims 1-32 remain pending.

In the Office Action mailed October 16, 2003, the specification was objected to, claims 1, 2, 12, 14, and 28 were rejected, claims 21-27 were allowed, and claims 3-11, 13, 15-20, and 29-32 were indicated to be allowable. More specifically, the status of the application in light of this Office Action is as follows:

(A) The specification stands objected to because the cross-reference to related applications contained missing text;

(B) Claims 1, 2, 12 and 14 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,573,186 to Ryerson et al. ("Ryerson"), with claim 1 further rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,155,815 to Francis et al. ("Francis");

(C) Claim 28 stands rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,658,387 to Reardon et al. ("Reardon"); and

(D) Claims 21-27 were allowed, with claims 3-11, 13, 15-20, and 29-32 indicated to be allowable if rewritten to be in independent form.

The undersigned attorney wishes to thank the Examiner for engaging in a telephone conference on November 25, 2003, to discuss the outstanding Office Action and the pending claims. During the telephone conference, the undersigned attorney and the Examiner discussed amendments to claims 1 and 28. Claims 1 and 28 have been amended in accordance with the November 25 telephone conference. The following remarks summarize and expand upon the November 25 discussion.

A. Response to the Objections to the Specification

The specification was objected to because the cross-reference to related applications did not include the serial numbers of applications filed concurrently with the present application. The specification has been amended to include the serial numbers. Accordingly, the objection to the specification should be withdrawn.

B. Response to the Section 102 Rejections of Claims 1, 2, 12, and 14

Claim 1, as amended, is directed to an apparatus for processing microelectronic workpieces and includes a plurality of processing stations, all of which are manually accessible to a user for (*inter alia*) manually loading microelectronic workpieces for processing. At least one of the processing stations includes an application station configured to apply material to the workpiece. An input/output station is configured to support at least one microelectronic workpiece for automatic transfer to and from the processing stations, and a transfer device is positioned proximate to the input/output station and the processing stations to automatically transfer workpieces between the input/output station and the processing station. The transfer device is "positioned to release the microelectronic workpieces for processing at the processing stations." As discussed below, neither of the applied references teaches or suggests, *inter alia*, this feature.

Ryerson is directed to an electroplating apparatus for plating electronic components. Ryerson's device is intended to overcome drawbacks associated with barrel-type plating devices. In particular, Ryerson discloses an apparatus configured to reduce the damage to parts that results from the tumbling motion associated with a rotating barrel (*see* Ryerson at column 1, lines 39-65). Accordingly, Ryerson's device includes work carriers 30 that carry work units (e.g., parts to be plated) during processing, so that the work units are not tumbled. The work carriers 30 move in a closed-loop path and are carried by an endless chain 44 (Ryerson at column 3, line 69 and column 4, line 5). The device further includes a plurality of plating tanks 121 through which the work units pass during processing. Elevator cam tracks 112 raise the work units over the ends 121a of the plating tanks 121 and then immerse the

workpieces "to the desired, precisely controlled depth in the plating solution," (Ryerson at column 10, lines 7-11).

Assuming, for the sake of argument, that Ryerson's work carriers 30 correspond at least in part to the transfer device of claim 1, Ryerson's work carriers remain engaged with the work units during processing. In fact, this mode of operation appears central to Ryerson's disclosed device. For example, if the workpieces were released from the work carriers 30, they would fall to the bottom of the plating tanks and therefore would not be immersed "to the desired precisely controlled depth in the plating solution," as recited by Ryerson. Therefore, Ryerson not only fails to disclose a transfer device "positioned to release the microelectronic workpieces for processing," but in fact teaches away from a device that includes this feature. Consequently, the Section 102 rejection of claim 1 on the basis of Ryerson should be withdrawn.

Claim 1 was also rejected under 35 U.S.C. § 102(b) as being anticipated by Francis. Francis is directed to an apparatus that overcomes the drawbacks associated with dipping materials in a plating operation (Francis at column 1, lines 28-38). Accordingly, Francis discloses an endless conveyor that clamps workpieces (e.g., PC boards) during electroplating processing (Francis at column 2, line 57 bridging to column 3, line 2). Opposing tractor treads 26 and 28, each carried by a corresponding chain 30, 32 capture a workpiece 122 as the workpiece is carried through a plating solution 104 (see Figures 5 and 8). The opposing treads capture the workpiece and "serve as a masking means to protect the portions of the board that don't require plating" (Francis at Abstract; see also column 2, lines 39-42).

Assuming for the sake of argument that Francis' conveyor corresponds at least in part to the transfer device of claim 1, Francis discloses retaining the workpieces during processing, in direct contrast to the language of claim 1. In fact, Francis teaches away from an arrangement in which a microelectronic workpiece is released for processing because such an arrangement would eliminate Francis' stated advantage of masking portions of the workpiece with the device carrying the workpiece. Therefore, the Section 102 rejection of claim 1 on the basis of Francis should be withdrawn.

Claims 2, 12, and 14 all depend from claim 1. The Section 102 rejections of these claims should be withdrawn for the reasons discussed above with reference to claim 1, and for the additional features of these dependent claims.

Claims 3-11, 13 and 15-20 were objected to as being dependent upon rejected base claim 1. These claims should be allowed for the reasons discussed above and for the additional features of these dependent claims.

C. Response to the Section 102 Rejection of Claim 28

Claim 28 was rejected under 35 U.S.C. § 102 as being anticipated by Reardon. Claim 28 is directed to a microelectronic workpiece processing apparatus that includes a plurality of processing stations arranged along a generally linear, single axis, with all the processing stations manually accessible to a user to manually load the microelectronic workpieces for processing. An input/output station is configured to support at least one workpiece for automatic transfer to and from the processing stations, and a transfer device is positioned proximate to the input/output station and the processing stations for automatic movement along the generally linear, single axis to transfer microelectronic workpieces between the input/output station and the processing stations. At least one of the processing stations includes a thermal processing station.

Reardon discloses a processing apparatus having a thermal treatment station 46 and a spray coating station 40 positioned toward one side, and an input station 43 and an output station 44 positioned toward an opposing side. A transfer station 41 is positioned between the two sets of stations. Accordingly, Reardon does not explicitly disclose processing stations "arranged along a generally linear, single axis" and a transfer device also positioned "along the generally linear single axis." As a result, Reardon fails to disclose at least one feature of claim 28 and therefore, the Section 102 rejection of claim 28 should be withdrawn.

Claims 29-32 were objected to as depending upon a rejected base claim 28. These claims should be allowed for the reasons discussed above and for the additional features of these claims.

D. Response to the Indication of Allowed Claims

Claims 21-27 were indicated to be allowed and have not been amended in this paper.

E. Conclusion

In view of the foregoing, the claims pending in the application comply with the requirements of 35 U.S.C. § 112 and patentably define over the applied art. A Notice of Allowance is, therefore, respectfully requested. If the Examiner has any questions or believes a telephone conference would expedite prosecution of this application, he is encouraged to call the undersigned attorney at (206) 359-3257.

Respectfully submitted,
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